## INTERCONNECTING NODES IN AN OPTICAL COMMUNICATION SYSTEM

## ABSTRACT OF THE DISCLOSURE

A sub-network of a communication network includes four nodes, with each node having two input ports and two output ports. The first node and the fourth node each link both of their input ports and one of their output ports to other nodes of the sub-network, with each of their remaining output ports operable to send signals outside of the sub-network. The second and third nodes link both of their output ports and one of their input ports to other nodes of the sub-network while each of their remaining input ports is operable to receive signals from outside of the sub-network.